

This listing of claims will replace all prior versions and listings of the claims in the application:

**LISTING OF THE CLAIMS:**

1-3. (Canceled)

4. (Currently Amended) ~~A method according to claim 1, wherein one of said channel metrics is unrecoverable channel distortion.~~ A method of dynamic frequency allocation for use in a wireless communications network geographically arranged into regions, each region containing at least one fixed base station and one or more subscriber terminals, communications between the fixed base station and the one or more subscriber terminals in each region taking place over an allocated one of a plurality of communications channels available for use by the network, the method comprising the steps of:

(a) monitoring the radio conditions on at least the allocated channel in each region;

(b) generating channel metrics including a metric for unrecoverable channel distortion corresponding to the monitored radio conditions on the channel; and

(c) reallocating a different channel to at least those regions where the generated channel metrics including the metric for unrecoverable channel distortion indicate that the allocated channel in those regions is suffering interference;

wherein steps (a), (b) and (c) are continuously repeated in order whereby channels may be dynamically reallocated to regions during continuous network operation.

5-6. (Canceled)

7. (Currently Amended) A method according to claim [[1]] 4, and further comprising the step of transmitting the generated channel metrics to a network control server year over a signalling channel.

8. (Original) A method according to claim 7 wherein said reallocation step (c) is performed centrally by the network control server, channel reallocation information being transmitted from the network control server to at least the fixed base station in each region over the signalling channel.

9. (Original) A method according to claim 7, wherein said signalling channel is a permanent ATM VPI/VCI pair.

10-11. (Canceled)

12. (Currently Amended) A method according to claim [[11]] 4, wherein ~~one of the channel metrics generated are~~ the monitoring step (a) further includes the step of monitoring a plurality of the available channels in addition to the allocated channel in each region and the generating step (b) includes the step of generating one or more respective channel metrics, where said channel metrics include the correlation levels obtained by correlating a known training sequence corresponding to the allocated channel with each, respective training sequence corresponding to each of the plurality of monitored channels corresponding to the respective radio conditions on each of the plurality of monitored channels.

13-17. (Canceled)

18. (Currently Amended) ~~A system according to claim 15, wherein one of said channel metrics is unrecoverable channel distortion.~~ A system arranged to perform dynamic channel

allocation for use in a wireless communications network geographically arranged into regions,  
each region containing at least one fixed base station and one or more subscriber terminals,  
communications between the fixed base stations and the one or more subscriber terminals in  
each region taking place over an allocated one of a plurality of wireless communications  
channels available for use by the network, the system comprising:-

(a) monitoring means for monitoring the radio conditions on at least the allocated  
channel in each region;

(b) metric generation means for generating one or more channel metrics including  
an unrecoverable channel distortion metric corresponding to the monitored radio conditions on  
the channel; and

(c) channel reallocation means for reallocating a different channel to at least those  
regions when the generated channel metrics including the unrecoverable channel distortion  
metric indicate that the allocated channel in those regions is suffering interference;

wherein said monitoring means, said metric generation means and said channel  
reallocation means each repeat their operations in order whereby channels may be  
dynamically reallocated to regions during continuous network operation.

19-20. (Canceled)

21. (Currently Amended) A system according to any of claim [[15]] 18 and further  
comprising transmission means for transmitting the generated channel metrics to a  
network control server over a signalling channel.

22. (Original) A system according to claim 21 wherein said reallocation means (c  
are located at the network control server, channel reallocation information generated by

the channel reallocation means being transmitted from the network control server to at least the fixed base station in each region over the signalling channel.

23. (Currently Amended) A system according to claim 21, wherein said signalling channel is a permanent ATM VPI/VCI pair.

24-25. (Canceled)

26. (Currently Amended) A system according to any of claim [[15]] 18, wherein the monitoring means (a) are further arranged to monitor a plurality of the available channels in addition to the allocated channel in each region and the metric generation means are further arranged to generate one or more respective channel metrics including the correlation levels obtained by correlating a known training sequence corresponding to the allocated channel with each respective training sequence corresponding to the respective radio conditions on each of the plurality of monitored channels.

27-28. (Canceled)

29. (Withdrawn) A method of signalling network control messages for use in packet-switched wireless data network geographically arranged into one or more cells, each cell comprising one or more fixed base stations and a plurality subscriber terminals arranged in a point-multipoint manner, communication between the base station and subscriber terminals in each cell being performed on a time division multiple access (TDMA) basis, the method being characterized by comprising the steps of:

defining a signalling frame for time division duplex transmission all data packets between the base station and subscriber terminals; and

transmitting the network control messages as data packets within the defined signalling frame.

30. (Withdrawn) A method according to claim 29, wherein said data packets are Asynchronous Transfer Mode (ATM) cells.

31. (Withdrawn) A method according to claim 29, wherein the network control messages are packetised directly into ATM cells.

32. (Withdrawn) A method according to claim 31, wherein the ATM cells containing the network control messages are assigned the same VPI/VCI addresses throughout the network, such that the network control messages are sent across dedicated VPI/VCI pair.

33. (Withdrawn) A method according to claim 32, wherein the dedicated VPI/VCI pair is permanently available.

34. (Withdrawn) A method according to claim 30, wherein the network control messages are packetised into Internet Protocol (IP) datagrams, the IP datagrams being subsequently packetised into ATM cells for transmission across the network.

35. (Withdrawn) A method according to any of claim 29, wherein the network is further provided with a network control server, network control messages being passed between any of the network control server, fixed base stations and subscriber terminals.

36. (Withdrawn) A method according to claim 35, wherein the network control messages relate to the transmission frequency at which base stations and subscriber terminals should transmit in each cell.

37. (Withdrawn) A system for signaling network control messages for use in packet-switched wireless data network geographically arranged into one or more cells, each cell comprising one or more fixed base stations and a plurality subscriber terminals arranged in a point-multipoint manner, communications between the base station and subscriber terminals in each cell being performed on a time division multiple access (TDMA) basis, the system being characterised by comprising:

means for defining a signalling frame for time division duplex transmission of all data packets between the base station and subscriber terminal  
and

means for transmitting the network control messages as data packets within the defined signalling frame.

38. (Withdrawn) A system according to claim 37, wherein said data packets are Asynchronous Transfer Mode (ATM) cells.

39. (Withdrawn) A system according to claim 37, wherein the network control messages are packetised directly into ATM cells.

40. (Withdrawn) A system according to claim 39, wherein the ATM tells containing the network control messages are assigned the same VPI/VCI address throughout the network, such that the network control messages are sent across a dedicated VPI/VCI pair.

41. (Withdrawn) A system according to claim 40, wherein the dedicated VPI/VCI is permanently available.

42. (Withdrawn) A system according to claim 38, wherein the network control messages are packetised into Internet Protocol (IP) datagrams, the IP datagrams being subsequently packetised into ATM cells for transmission across the network.

43. (Withdrawn) A system according to any of claim 37, wherein the network is further provided with a network control server, network control messages being passed between any of the network control server, fixed, base stations and subscriber terminals.

44. (Withdrawn) A system according to claim 43, wherein, the network control messages relate to the transmission frequency at which base stations and subscriber terminals should transmit in each cell.